

Raymond Tait, vice president for research at St. Louis University, says that pharma's staff shedding might serve as a boon in the translational arena, and that universities might receive a shot in the arm from pharma's operational shifts. "I think that we're in the midst of a sea change, where big pharma will migrate to a different model to do the research and development that's needed," Tait says, pointing out that it gives institutions a chance to stuff their rosters with "a remarkable array of highly talented scientists" that otherwise might not be available to them.

That's what happened to Pfizer research scientist Peter Ruminski. When the company announced it would be moving out of its St. Louis research site in 2009, he approached his alma mater, St. Louis University, to set up a research center directed at translational therapies in orphan and neglected diseases. The Center for Global Health and Medicine has been running on the university's campus since July 2010.

But the Pfizer Sandwich site—and potentially other rurally placed R&D facilities in Europe—do not have the advantage of proximity to a center of research excellence. Pfizer's Missouri facility was close to St. Louis University, and its Ann Arbor site was within easy reach of the University of Michigan. In contrast, the research center in Kent is a fair distance from the academic hubs of Oxford and Cambridge, and opportunities outside of Pfizer in the immediate area are limited. That has left many looking to the Sandwich Economic Development Task Force and the UK government to catalyze job creation in the East Kent area.

On March 15, the Kent task force, released a report that tackles the location issue head on, by requesting booster funding for

Box 1 Rising from the ashes?

About a year ago, AstraZeneca employees at the research site in Charnwood, Leicestershire, found themselves facing an uncertain future when the company announced it would close down research activities there and move some operations to its sister facility in Sweden. Work isn't due to stop until the end of July, but groups of researchers have already taken steps toward starting bioscience companies of their own. Leading that parade, Gary Allenby and three colleagues founded Aurelia Biosciences, located in Nottingham, UK.

"We're almost all bench scientists," Allenby says. "Between us we have 90 years of experience in the drug discovery business." Aurelia is housed in rented space at BioCity Nottingham, a bioscience incubator founded in 2003 that currently hosts 70 biotech and health science companies. AstraZeneca has been supportive, offering to supply Aurelia with equipment from the Charnwood site when work there stops. Allenby is also holding preliminary conversations with AstraZeneca about contract work. Others have similar plans. Clinical researchers at AstraZeneca, Sarah Hill and co-worker Rachel Taylor, are about to launch Genios at BioCity, and more groups at the UK pharma have expressed interest in starting up new companies.

Similar ventures might also spring from the rich pharmaceutical expertise at the Sandwich site. In fact, BioCity has contacted Pfizer about involving researchers in the Nottingham incubator's entrepreneurship boot camps. If so, that would please London-based BioIndustry Association (BIA). BIA's chief executive Nigel Gaymond says more government investment to support startups and spin offs might help industry take root in the wake of Pfizer's closure. "There's two ways you can react" after a massive closing, he ventures. "[You can say] the sky is falling. Or you say, okay, what's the opportunity that can be derived from this?"

Another site that found some silver lining in a shutdown was the Pfizer site in Ann Arbor, Michigan, that was closed in 2008, Gaymond suggests. After massive layoffs there, the University of Michigan swooped in and bought the 174-acre site, with plans to staff it with 2,000 employees over the next ten years.

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various infrastructural undertakings, including building high-speed rail between Sandwich and neighboring areas. The report also recommends that the government formally designate the East Kent area as a Research, Innovation and Technology Zone, outfitted with benefits like capital incentives and tax credits for R&D, with a view to attracting new employers to the area. Pfizer has begun talking to contract research organizations about taking over the

facilities they are vacating, the report says, though talks are preliminary.

It is possible that the Kent site may bounce back. Paul Carter, leader of the Kent County Council, hopes it does, but he knows there isn't a quick fix. "There are very good examples of what's gone on in the past," Carter says, "And it takes time, innovation and bravery to make that happen."

Nidhi Subbaraman *New York*

IN their words



"Essentially their model was designed for the kind of medical devices you see in museums."

US President Barack Obama comments on the urgent need to modernize the FDA's Center for Devices and Radiological Health.

(*Financial Times*, 25 February 2011)

"This is panic time, this is truly panic time for the industry." Tufts' Kenneth Kaitin, director of the Center for the Study of Drug Development, on pharma's realization that revenues are too feeble to sustain their R&D as they witness their pipelines drying out. (*New York Times*, 7 March 2011)

IN brief

Architects meet stem cells



Mark Citret, Bruce Damonte

UCSF's new stem cell building.

The University of California at San Francisco opened in February a bold new \$123 million building to house its stem cell research facility. The Ray and Dagmar Dolby Regenerative Medicine Building is an example of cutting edge architecture specifically designed to ramp up research productivity. "The point of the building is to accelerate the work we do here, and one way it does this is by creating neighborhoods where you have clusters of investigators working on similar problems," says Arnold Kriegstein director of the Eli and Edythe Broad Center of Regeneration Medicine and Stem Cell Research, which will be housed in the new facility. One design strategy for achieving this goal was to have open bench laboratory areas. The building's roughly 300 scientists and technicians would share the same work space and equipment even if they were working on different areas of research. The result says Kriegstein is "the feeling that this is just one large enterprise." Another design innovation to create a sense of working intimacy was a split-level, open glass, partition design that effectively makes the four floors of the building only half a floor apart. "The open stairways and glass partitions allow for a seamless floor-to-floor relationship," is how Kriegstein describes it. Fetal surgeon Tippi MacKenzie, for instance, shares laboratory space with another group studying placental biology, a proximity that creates a synergy for exploring how implanted maternal stem cells might treat diseases while a child is still in the womb.

Stephen Strauss